

**AMENDMENTS TO THE CLAIMS:**

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) A process for producing a maraging steel excellent in fatigue characteristics which comprises:

melting [[a]] steel having a composition consisting essentially of, in % by weight:

C: 0.01% or less,

Ni: 8-19%,

Co: 8-20%,

Mo: 2-9%,

Ti: 0.1-2%,

Al: 0.15% or less,

N: 0.003% or less,

O: 0.0015% or less,

and the balance Fe and the Ti component segregation ratio and the Mo component segregation ratio in its structure being 1.3 or less each;

casting the molten steel to obtain a steel ingot;

hot forging the steel ingot at a forging ratio of at least 4 to obtain a

forged piece;

then submitting said forged piece to soaking treatment by keeping the forged piece one or more times at a temperature range of 1100-1280°C for a total hot holding time of 10-100 hours, to make the Ti component segregation ratio and the Mo component segregation ratio in a structure of said forged piece be 1.3 or less each; and

then plastic working the forged piece.

2. (Cancelled).

3. (Currently Amended) A process for producing a maraging steel excellent in fatigue characteristics which comprises[[:]] :

melting [[a]] steel having a composition consisting essentially of, in % by weight:

C: 0.01% or less,

Ni: 8-19%,

Co: 8-20%,

Mo: 2-9%,

Ti: 0.1-2%,

Al: 0.15% or less,

N: 0.003% or less,

O: 0.0015% or less,

~~and the balance Fe and containing a nonmetallic inclusion in its structure having a size of 30  $\mu\text{m}$  or less when the size of the nonmetallic inclusion is expressed by the diameter of a corresponding circle taking the circumferential length of the nonmetallic inclusion to be the circumference of the corresponding circle;~~

casting the molten steel to obtain a steel ingot of a taper  $T_p = (D_1 - D_2) \times 100/H$  of 5.0-25.0%, a height-diameter ratio  $R_h = H/D$  of 1.0-3.0, and a flatness ratio  $B = W_1/W_2$  of 1.5 or less, taking the diameter of a corresponding circle with a circumference corresponding to the circumferential length of the top of the steel ingot as  $D_1$ , the diameter of a corresponding circle with a circumference corresponding to the circumferential length of the bottom of the steel ingot as  $D_2$ , the height of the steel ingot as  $H$ , the diameter of a corresponding circle with a circumference corresponding to the circumferential length of the steel ingot at a location of  $H/2$  as  $D$ , and the length of the long side and length of the short side of the steel ingot at a location of  $H/2$  as  $W_1$  and  $W_2$ , respectively;

hot forging the steel ingot at a forging ratio of at least 4 ~~for to obtain~~ a forged piece;

then submitting said forged piece to soaking treatment by keeping the forged piece one or more times in a temperature range of 1100-1280°C for a total hot holding time of 10-100 hours to make the Ti component segregation ratio and the Mo

component segregation ratio in a structure of said forged piece be 1.3 or less each;

and

then plastic working the forged piece to make the size of ~~[[a]]~~  
nonmetallic ~~inclusion~~ inclusions in the steel be 30  $\mu\text{m}$  or less when the size of the  
nonmetallic inclusions ~~inclusion~~ is expressed by the diameters ~~diameter~~ of ~~[[a]]~~  
corresponding circles ~~circle~~ taking the circumferential ~~length~~ lengths of the  
nonmetallic inclusions ~~inclusion~~ to be the circumferences ~~circumference~~ of the  
corresponding circles ~~circle~~.

4. (New) The process according to claim 1, wherein said process does not include arc remelting.

5. (New) The process according to claim 3, wherein said process does not include arc remelting.

6. (New) The process according to claim 1, wherein said total hot holding time is 20-100 hours.

7. (New) The process according to claim 3, wherein said total hot holding time is 20-100 hours.